Appl. No. 10/001,769

Amdt. dated January 27, 2005

Reply to Office Action of September 27, 2004

In the Claims

The listing of claims is submitted again here as a courtesy, even though no amendments are

being made:

Claim 1 (original): An infeed apparatus for a sheet material article trimmer, the infeed apparatus

comprising:

a pusher element movable relative to a front table of the sheet material article trimmer and

configured to move a sheet material article to be trimmed on the front table and into engagement

with a backstop of the front table; and

a driver configured to move the pusher element at a same speed as the front table for a

period of time with the pusher element in engagement with a first edge portion of the sheet material

article and the backstop in engagement with a second edge portion of the sheet material article, the

period of time being at least as long as a time required for a front clamp of the sheet material article

trimmer to move through a distance corresponding to a difference in thickness between a thinnest

sheet material article in a range of thicknesses and a thickest sheet material article in the range of

thicknesses so as to grip the sheet material article against the front table.

Claim 2 (original): The infeed apparatus as recited in claim 1 wherein the pusher element is

further configured to retract from the sheet material article and engage a next succeeding sheet

material article to be trimmed.

Claim 3 (original): The infeed apparatus as recited in claim 1 wherein the driver includes:

a main cam rotated by a main trimmer drive of the sheet material article trimmer; and

at least one cam follower operatively connected to the pusher element and configured to

follow the main cam so as to move the pusher element at the same speed as the front table when the

cam follower is in a first arc of the main cam, the cam follower being on the first arc of the main

cam for the period of time.

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Claim 4 (previously presented): The infeed apparatus as recited in claim 3 wherein the main cam

includes a second arc, the at least one cam follower being configured to follow the main cam so as

to move the pusher element through a return stroke when the cam follower is in the second arc of

the main cam.

Claim 5 (original): The infeed apparatus as recited in claim 4 wherein the main cam includes a

third arc, the at least one cam follower being configured to follow the main cam so as to move the

pusher element through a forward stroke when the cam follower is in the third arc of the main cam.

Claim 6 (canceled).

Claim 7 (original): The infeed apparatus as recited in claim 4 wherein the at least one cam

follower includes a first and a second cam follower disposed at opposite sides of the main cam and

urged into engagement with the main cam.

Claim 8 (original): The infeed apparatus as recited in claim 1 wherein the driver includes a servo

motor configured to vary a speed of the pusher element.

Claim 9 (original): The infeed apparatus as recited in claim 1 wherein the clamp is configured to

grip the sheet material article against the front table for a trimming operation of the sheet material

article trimmer.

Claim 10 (original): The infeed apparatus as recited in claim 9 wherein the trimming operation is

performed using a front knife of the sheet material article trimmer disposed so as to reciprocate with

the front table.

Claim 11 (original): The infeed apparatus as recited in claim 1 wherein the front table is included

in a front trimmer assembly of the sheet material article trimmer.

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Claims 12 to 20 (canceled).

Claim 21 (previously presented): An infeed apparatus for a sheet material article trimmer, the infeed apparatus comprising:

a pusher element movable relative to a front table of the sheet material article trimmer and configured to move a sheet material article to be trimmed on the front table and into engagement with a backstop of the front table; and

a driver configured to move the pusher element at a different speed than the front table to move the sheet material article to be trimmed on the front table and into engagement with the backstop and to move at a same speed as the front table for a period of time with the pusher element in engagement with a first edge portion of the sheet material article and the backstop in engagement with a second edge portion of the sheet material article, the period of time being at least as long as a time required for a front clamp of the sheet material article trimmer to move through a distance corresponding to a difference in thickness between a thinnest sheet material article in a range of thicknesses and a thickest sheet material article in the range of thicknesses so as to grip the sheet material article against the front table.